PELCO

by Schneider Electric

OPERATION

Endura® SM5200 System Manager

C4688M (8/12)

Contents

Introduction 5
Pelco Web Viewer Basics 5
Shared Resources 6

Logging On to the Pelco Web Viewer 7

Viewing Live Video 8
Enabling Extended View 8
Closing Video Feeds 9
Viewing Settings 9

Searching Recorded Video 10
Search Results 11
Previewing Video 12
Video Exports 13
Exporting Video Clips 13

Export Manager 14
Downloading Video 14
Deleting Video 14

System Manager Status 15
System Information Panel 15
Temperature Status 15
Video Storage 16
Fan Status 16
Disk Status 16
Power Status 16

Troubleshooting 17

List of Illustrations

1 Pelco Web Viewer Overview 5
2 System Manager Logon 7
3 View Live Video Page 8
4 Search Recorded Video Page 10
5 Search Results 11
6 Video Preview Window with Playback Controls 12
7 Controls for Trimming Video Duration 13
8 Export Manager Page 14
9 System Manager Status Page 15

Introduction

The Pelco Web Viewer provides quick access to video on the Endura® network without installing or running additional client software. From the Pelco Web Viewer, you can access up to 16 live video feeds, search for recorded video from cameras on the Endura network, and export recordings.

This operations manual is designed to help users access the Pelco Web Viewer interface and view live video, search for recorded video, and export clips from the system manager.

NOTE: The Pelco Web Viewer is designed for light to moderate Endura users. For users accessing Endura in installations with 1,500 cameras or more, use the WS5200 client software.

PELCO WEB VIEWER BASICS

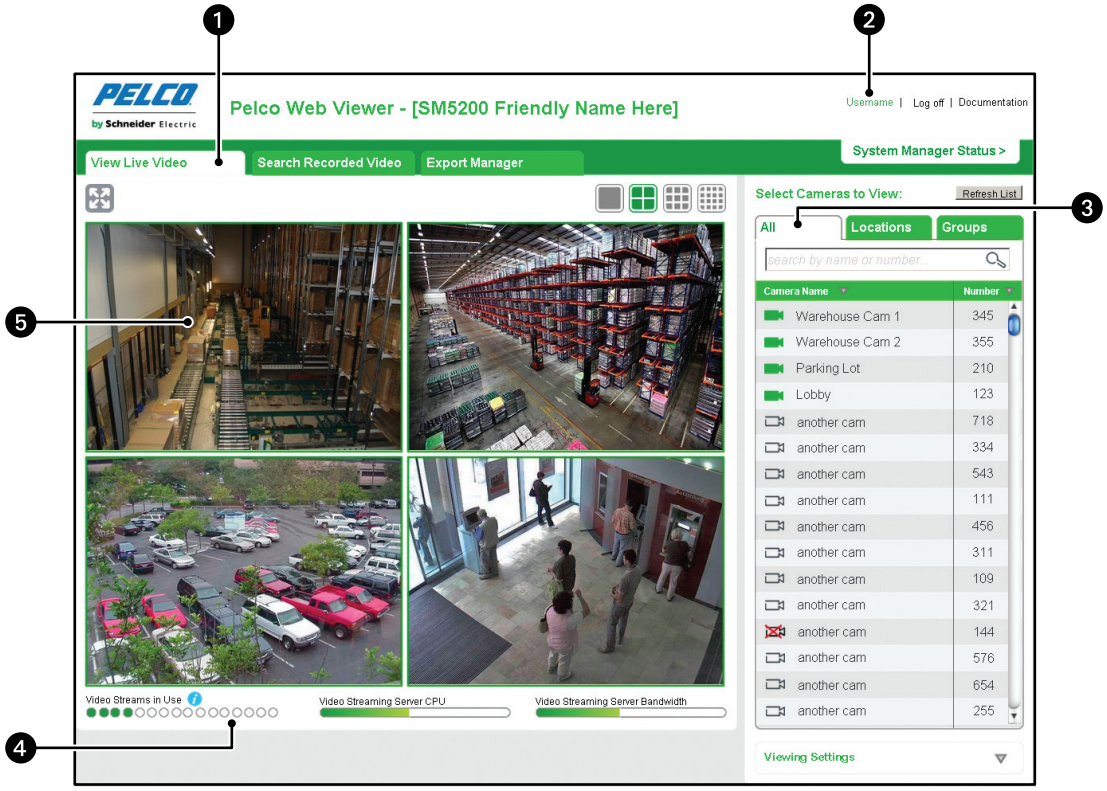

Figure 1. Pelco Web Viewer Overview

1. **Page Tabs:** Navigates between pages in the Pelco Web Viewer.
2. **User Links:** Displays your User name and provides links to Log Off and view documentation for the SM5200.
3. **Camera List Panel:** Provides options, a list of cameras and viewing options for the page.
4. **Shared Resources:** Provides information about the total resources in use across all users connected to the Pelco Web Viewer.
5. **Video pane:** Displays video. The selected layout determines how many video panes appear on the page.

SHARED RESOURCES

Users connected to the Pelco Web Viewer share the system manager's resources. Graphics at the bottom of each page within the Pelco Web Viewer provide relevant information about the resources available to the user. Operating at the upper limits of the Pelco Web Viewer may affect performance or prevent video viewing.

- **Video Streams in Use:** The Pelco Web Viewer can stream up to 16 video feeds simultaneously; the total number of feeds of all users connected to the Pelco Web Viewer cannot exceed 16. Each green circle represents a feed that is in use.
- **Video Streaming Server CPU:** The Pelco Web Viewer *allots a certain portion of its CPU to video streaming services. This bar shows how much CPU bandwidth is currently in use.*
- **Video Streaming Server Bandwidth:** The system manager allots a certain portion of network bandwidth to video streaming and downloading from the Pelco Web Viewer. This bar shows how much of the allotted network bandwidth is currently in use.

NOTES:

- Administrators can configure the amount of bandwidth available to the Pelco Web Viewer from the Configuration Interface.
- The Pelco Web Viewer updates shared resource information every 30 seconds.

Logging On to the Pelco Web Viewer

NOTES:

- You can access the Pelco Web Viewer using Microsoft® Internet Explorer® versions 9 and later, Mozilla® Firefox® versions 8 and later, and Google Chrome™ versions 16 and later.
- You may receive a security certificate warning when accessing the system manager from a computer on which you have not previously accessed the system manager. If this is the case, add an exception in your browser to allow unobstructed access to the system manager. The process for adding an exception depends on the browser you use to access the system manager.
- If you are unable to access the Pelco Web Viewer, contact your system administrator and ensure that the Pelco Web Viewer is enabled and your user account has the Remote Access permission enabled. The Pelco Web Viewer is enabled through the SM5200 Web configuration interface, and the Remote Access permission is enabled for the role belonging to a user or users through the WS5200 application.

1. Open a Web browser on a computer with network access to the system manager.

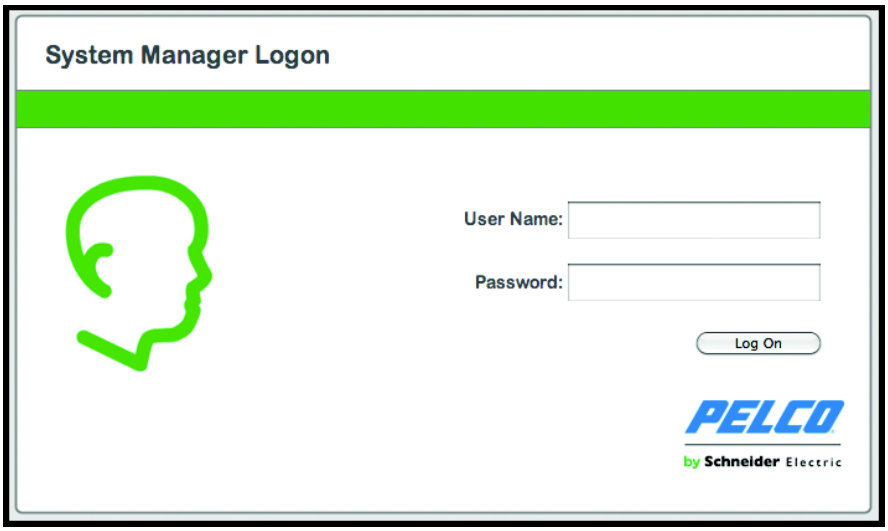

Figure 2. System Manager Logon

2. Input the IP address or host name of your SM5200, provided by your IT department, in the navigation bar.
3. Type your User Name and Password in the appropriate fields.
4. Click Log On.

Viewing Live Video

Click View Live Video to view video streams from up to 16 cameras simultaneously.

NOTES:

- Live video viewing is subject to the network bandwidth restrictions set by the administrator and the transcoding limitations of the hardware. Surpassing either limitation will prevent users from displaying the full 16 video streams.
- It is recommended that you do not use your Web browser's refresh button while viewing live video. Refreshing the browser will cause streams in use to remain in use while continuing to consume limited system manager resources until the Pelco Web Viewer updates resource information. The Pelco Web Viewer updates resource information every 30 seconds.

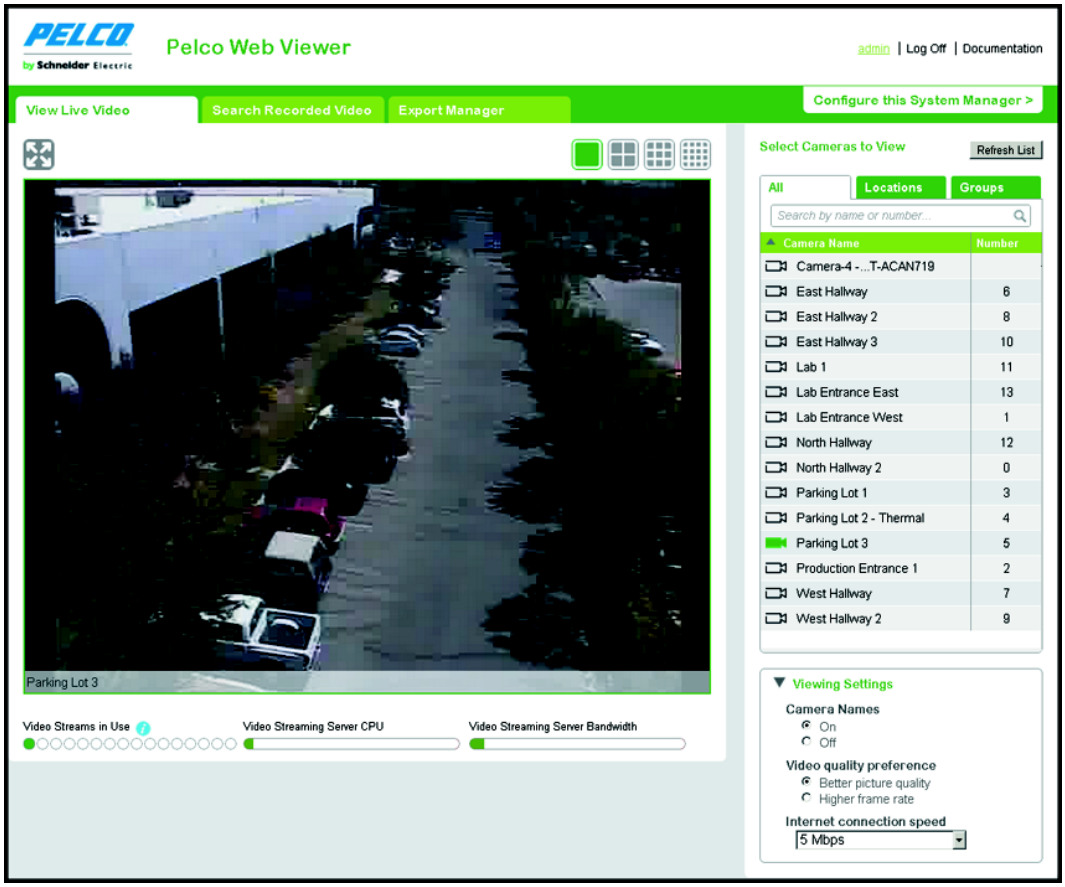

Figure 3. View Live Video Page

1. Click View Live Video.
2. Click one of the layout icons to arrange your live video page. You can set the layout for single, 2 x 2, 3 x 3, or 4 x 4 views
3. Use the side panel to locate the camera or cameras you want to view. You can sort cameras by location or group. You can also search for cameras by name or number.
4. Add the camera to the page by:
   a. Double-clicking the camera to add it to the next available video pane.
   b. Clicking and dragging the camera to the video pane of your choice.

ENABLING EXTENDED VIEW

Place the mouse cursor over any video pane and click the Expand Icon to expand a live video feed in its own browser window. Click the Expand Icon outside all viewpanes to expand the entire video layout in a separate browser window.

CLOSING VIDEO FEEDS

Each open video feed consumes one of the System Manager's 16 available streams. When you have finished viewing a stream, close it to make additional streams available for all users.

Place the mouse cursor over a video pane and click the close icon to stop viewing a video stream.

VIEWING SETTINGS

Clicking Viewing Settings reveals additional settings for determining the behavior of live video viewing panes.

- **Camera Names:** Select whether or not camera names appear in view panes.
- **Video Quality Preference:** Choose whether Pelco Web Viewer performance aims for better picture quality or higher frame rates.
- **Internet Connection Speed:** Set your internet connection speed as close as possible to the network speed between the the client and the Pelco Web Viewer. Your internet connection speed helps determine the performance of video feeds. An internet connection speed setting that is too high or too low may impact video performance.

NOTE: A high Internet Connection Speed setting is still subject to bandwidth restrictions set by the administrator in the configuration interface.

Searching Recorded Video

You can search for recorded video on the Endura network by clicking the Search Recorded Video tab. You can search by camera, date, time, and recording event. You can also preview search results and export recorded clips to the SM5200.

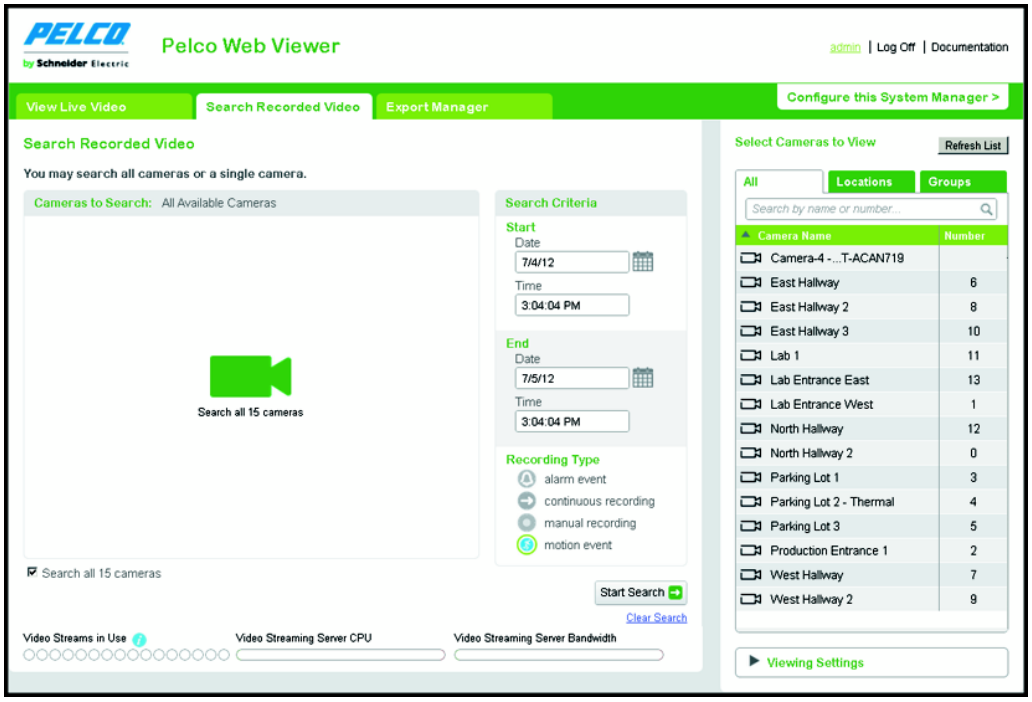

Figure 4. Search Recorded Video Page

1. Enter your Search Criteria:
   a. Choose the date and time from which to begin the search.
   b. Choose the date and time from which to end the search.
   c. Select the Recording Type by clicking one of the four recording type icons; this is the event that triggered the recording.
2. Choose a camera or cameras to search for video:
   a. Select an individual camera from the “Select Cameras to Search” list. You can sort cameras by Location or Groups, or you can search for an individual camera by typing the camera name or number in the search box above the list.
      - Click and drag a camera into the “Cameras to Search” box.
      - Double-click a camera.
   b. Select “Search all cameras” to search for video across all cameras.
3. Click Start Search. The Search Results page appears.

SEARCH RESULTS

Up to 30 results can be displayed per page; navigate across multiple pages of search results using the numbers or Next button at the top of the results grid; click Preview to view a video clip.

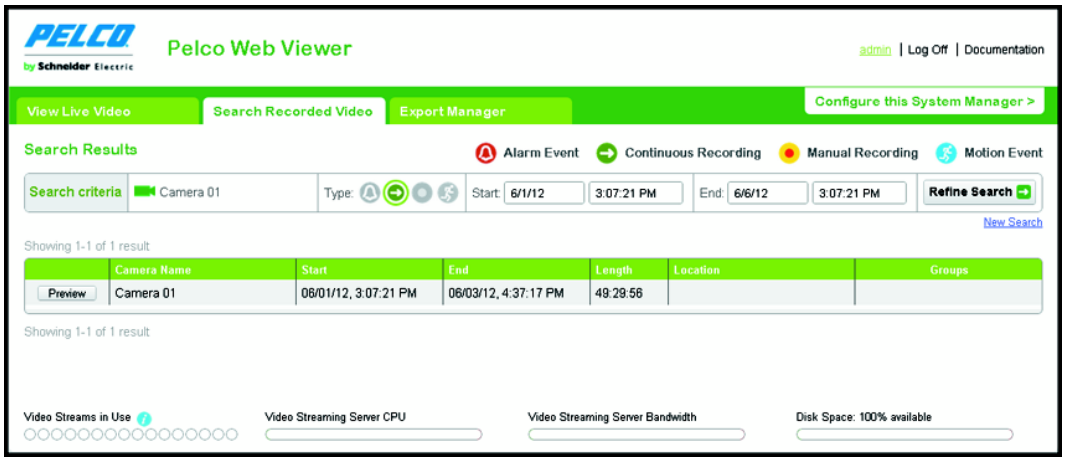

Figure 5. Search Results

The Search Criteria fields allow you to modify your original search parameters for the selected camera or cameras. If you would like to search a different camera or cameras, click New Search or the Back button on your browser.

PREVIEWING VIDEO

You can play back video from both the Search Results or Export Manager pages. Click the Preview button associated with any video to view the recording. Place your cursor over the video to display on-screen controls for video playback.

NOTE: Video clips previewed from the Search Results or Export Manager pages play back from the network storage device (NSD) on which they are recorded and consume one of the Pelco Web Viewer's 16 available streams. If all the system manager's video streams are in use or a video is no longer available on the NSD, you will not be able to preview it.

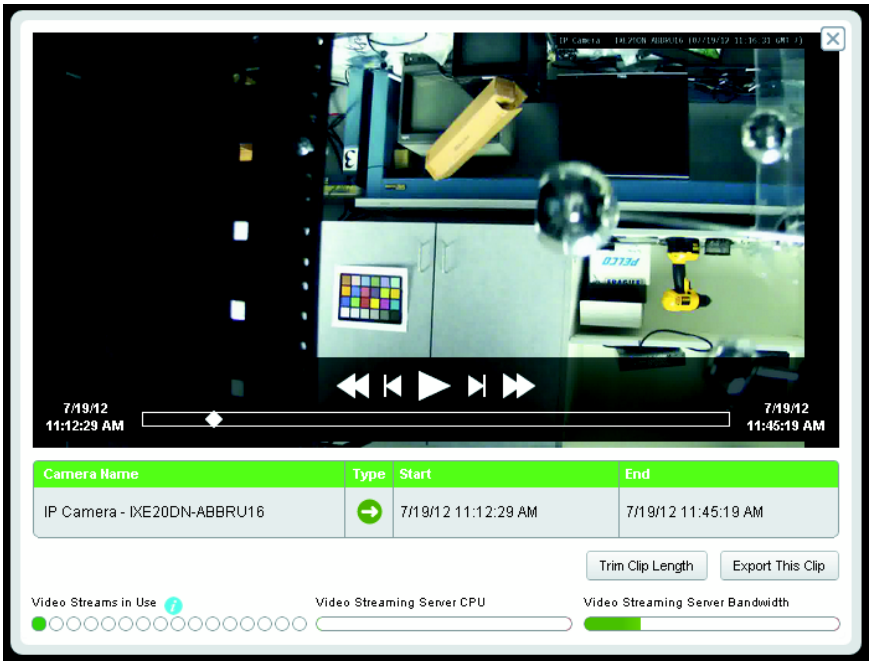

Figure 6. Video Preview Window with Playback Controls

Button	Function	Description
	Play	Plays video at normal speed.
	Fast Forward	Plays video at 2x speed. Click again to double the playback speed (4x, 8x, 16x).
	Rewind	Reverses video at 2x. Click again to double the speed (4x, 8x, 16x).
	Frame Forward	Advances video a single frame.
	30 Second Rewind	Rewinds video exactly 30 seconds. **NOTE:** If you have not advanced a video clip at least 30 seconds, this button will have no affect.
	Timeline Slider	Allows the user to move directly to a certain moment in the video.

VIDEO EXPORTS

When Previewing a search result, you can choose to export the clip from the camera, encoder, or network storage device to the system manager for safekeeping or for evidentiary purposes. The SM5200 holds exported clips in the native video format, maintaining the security authentication scheme required to prevent tampering.

NOTE: Exporting video does not delete or otherwise alter video on the Endura network; exporting a clip simply copies the video to the system manager from the network storage device.

EXPORTING VIDEO CLIPS

1. Click the Trim Clip Length button.
2. Use the green sliders to select the video information you want to export.
3. Click the Apply Trim button.

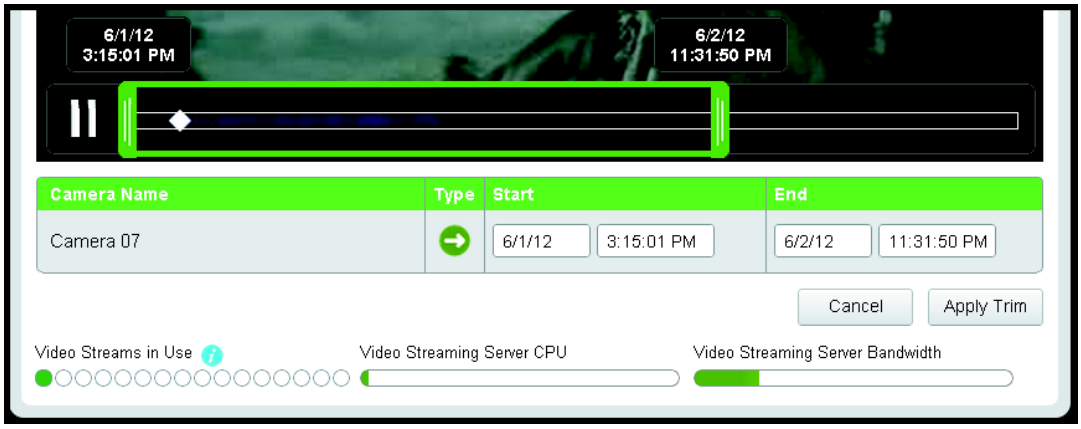

Figure 7. Controls for Trimming Video Duration

NOTE: Trimming video does not alter video on the Endura network. It only determines the duration of a video being exported to the system manager.

4. Click Export This Clip to xport the footage from the source to the system manager.

Export Manager

The Export Manager page contains videos saved to the system manager's video storage. From here, you can preview, download, and delete recordings.

By default, video clips in the Export Manager are organized from newest to oldest, top to bottom. Click the label of any column to re-sort clips. Refresh the page to return to the original sort order.

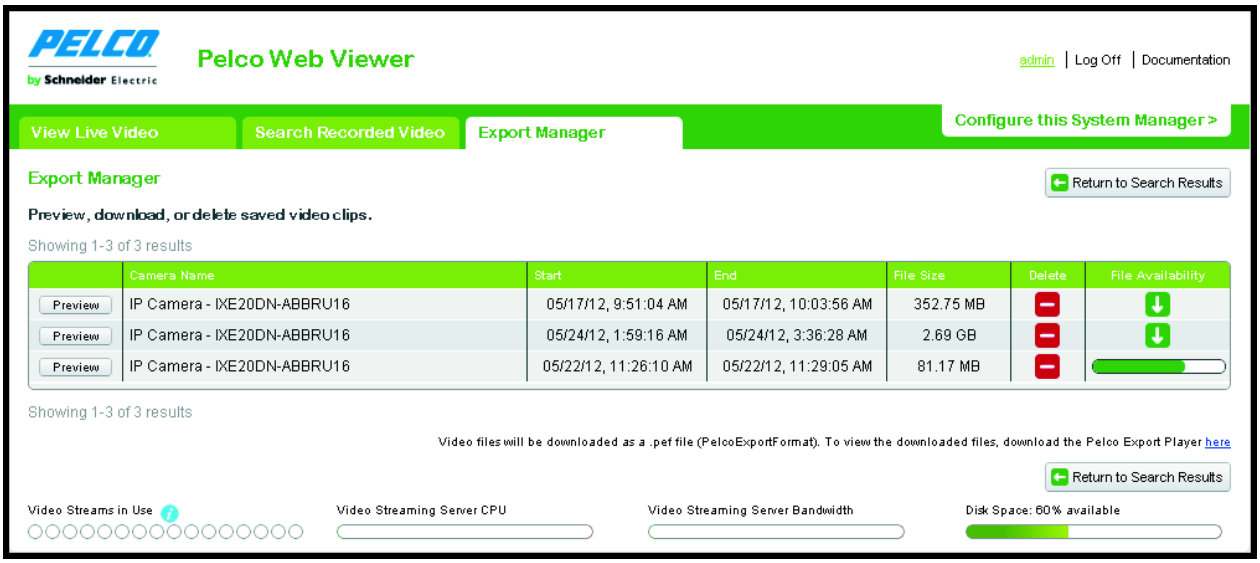

Figure 8. Export Manager Page

DOWNLOADING VIDEO

Click the download icon on the Export Manager page or from the Preview Player to download a video.

Video exports are encoded in the Pelco Export Format (.pef). Download and install the Export Media Player to view .pef files, which is available from the link in the lower-right corner of the Export Manager page.

DELETING VIDEO

Downloaded video remains in the system manager's video storage until a user deletes it. Click the delete icon to delete a video.

NOTE: Deleting a video only removes it from the system manager's video storage. It does not affect recordings saved to cameras or network storage devices on the Endura network.

System Manager Status

Click System Manager Status to view current system information and diagnostics.

NOTE: If logged on as an administrator, the System Manager Status link will read “Configure this System Manager.” Administrators can view status information from the Web configuration application.

The System Manager Status page does not update in real time. Click Refresh to gather new status information for your system manager.

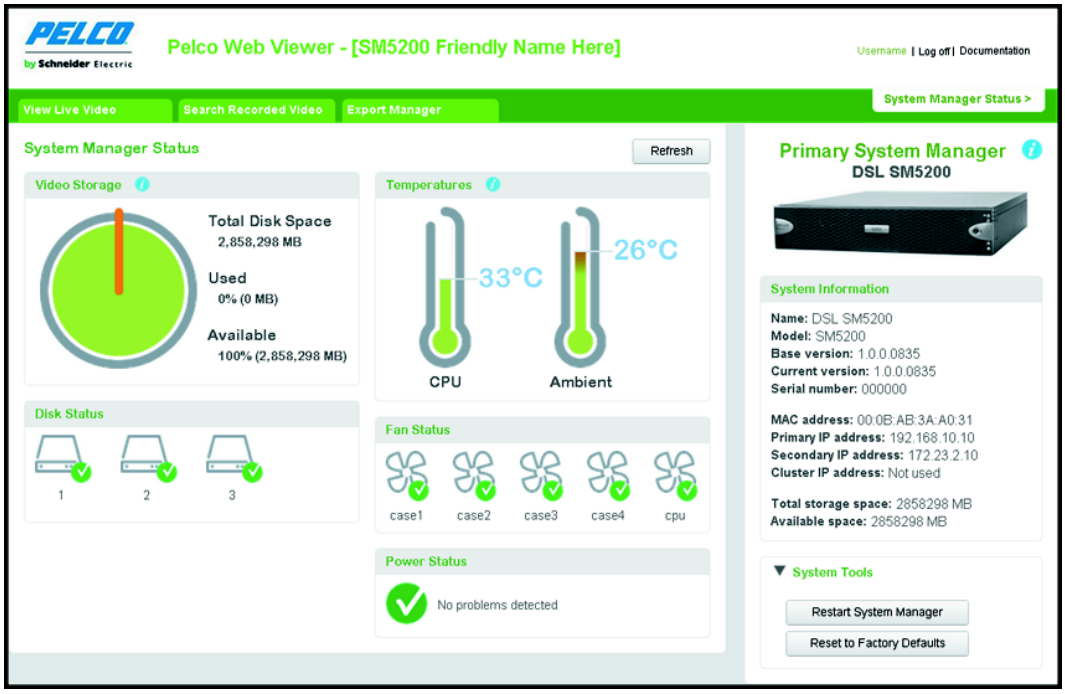

Figure 9. System Manager Status Page

SYSTEM INFORMATION PANEL

The side panel on the System Manager Status page shows basic system information about the system manager to which you’re connected. To alter any of the system manager’s settings, contact the system administrator.

TEMPERATURE STATUS

The two thermometer icons under Temperature display the core CPU temperature and ambient system temperature of the system manager. By default, temperatures appear in Celsius. Click a thermometer icon to switch between Celsius and Fahrenheit readings.

The thermometers fill in and change color from green to red as the temperature nears the alarm threshold. Alarm thresholds are as follows:

- 72°C (161.6°F) for the CPU
- 35°C (95°F) for ambient temperature

If either temperature reading nears the alarm threshold and the thermometer begins to turn red, take action to determine the cause and alleviate the problem: improve the rack cooling strategy; check and clean the air filter; or relocate the unit to an environment where an ambient temperature of 35°C (95°F) or lower can be guaranteed.

⚠ **WARNING:** If either temperature reading crosses the temperature alarm threshold, take action immediately to prevent hardware failure and potential data loss.

VIDEO STORAGE

From the Pelco Web Viewer, users export recorded footage onto the system manager's integrated storage array for safekeeping and future access. The SM5200 supports up to 12 TB of video storage.

The video storage pie chart displays the percentages of used and available video storage.

NOTE: You can free Video Storage by deleting videos from the Export Manager.

FAN STATUS

The SM5200 contains five fans. Each fan's status appears under Fan Status. Fans that are working properly display a green check ; fans that have failed display a red alarm .

NOTE: Fan failures will cause the unit's internal temperature to rise, which can potentially result in hardware damage. Contact your Endura system administrator or Pelco Product Support if any of your fans fail.

DISK STATUS

The SM5200 contains up to six hard disk drives depending on model. Disk Status displays the status of your system manager's drives; functioning drives display a green check ; failed drives display a red alarm .

Disks 1 and 2 are SSDs (Solid State Drives) containing the operating system in a RAID 1 configuration. Replace failed disks in drive bays 1 or 2 with Pelco-provided SSDs immediately to prevent a potential loss of system integrity. After replacing a failed drive, the new drive begins rebuilding automatically to re-establish RAID 1 parity.

Disks 3 through 6 are HDDs (Hard Disk Drives) used for video storage in JBOD or RAID 5 format, depending on your configuration. RAID 5 ensures data integrity with one disk failure. Replace failed disks before a second drive fails to prevent data loss.

For more information about the system manager's drive array, refer to your installation manual.

POWER STATUS

Power Status shows whether the unit is drawing power from a primary AC source or, in the event of a power failure, an uninterruptable power supply (UPS). A green check indicates that the unit is drawing primary power; a yellow exclamation point indicates that primary power has failed an the unit is drawing power from an UPS.

It is recommended that you connect your SM5200 to the APC SmartUPS unit to prevent system failures or data loss due to power outages.

Troubleshooting

If the following instructions fail to solve your problem, contact Pelco Product Support at 1-800-289-9100 (USA and Canada) or +1-559-292-1981 (international) for assistance.

NOTE: Do not try to repair the unit yourself. Leave maintenance and repairs to qualified technical personnel.

Problem	Possible Causes	Suggested Solution
User is unable to log on.	The user does not have the remote access permission enabled.	An administrator must enable the Remote Access permission for the user's role from the WS5200 application, version 2.5.3.10286 or later.
	The user's password includes unsupported characters.	Log on to an Endura workstation and change your password.
Cameras or devices registered to the system manager do not appear in the Web application.	Large batches of recently registered devices take additional time to appear in the Web viewing application.	Wait an appropriate amount of time for cameras to appear in the Web viewing application. It can take approximately 40 seconds for 100 newly added cameras to appear in the Web application, 6 minutes for 1000 cameras, and approximately 30 minutes for 5000 cameras.
Exported videos do not play back when previewed.	The video has been removed from the network storage device (NSD).	Video is previewed from the NSD on which it was recorded. If the video is removed from the NSD, you will be unable to preview it. Download the video to view the clip.
	The network storage device is off line.	Check to ensure that the NSD is on line.
Exported video stops unexpectedly while being previewed.	The user does not have permission to access the camera from which the video clip was exported.	An administrator must grant the user permission to access the camera using the WS5200 software. Permissions are checked regularly on the SM5200. If previewing video from a camera the user is not permitted to access, the SM5200 will stop streaming video once the system manager verifies the user's permissions.
User cannot export video from a particular camera.	The friendly name of the camera contains unsupported characters.	If the friendly name of a camera contains an apostrophe or the percent symbol, the system manager cannot export video from it. Change the camera name using the WS5200 application to export video from the camera using the Pelco Web Viewer.

PRODUCT WARRANTY AND RETURN INFORMATION

WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship **for a period of one year** after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years:
  - Fiber optic products
  - Unshielded Twisted Pair (UTP) transmission products
  - CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models
- Three years:
  - FD Series and BU Series analog camera models
  - Fixed network cameras and network dome cameras with Sarix® technology
  - Sarix thermal imaging products (TI and ESTI Series)
  - Fixed analog camera models (C20 Series, CCC1390H Series, C10DN Series, and C10CH Series)
  - EH1500 Series enclosures
  - Spectra® IV products (including Spectra IV IP)
  - Spectra HD dome products
  - Camclosure® IS Series integrated camera systems
  - DX Series video recorders (except DX9000 Series which is covered for a period of one year), DVR5100 Series digital video recorders, Digital Sentry® Series hardware products, DVX Series digital video recorders, and NVR300 Series network video recorders
  - Endura® Series distributed network-based video products
  - Genex® Series products (multiplexers, server, and keyboard)
  - PMCL200/300/400 Series LCD monitors
  - PMCL5xxF Series and PMCL5xxNB Series LCD monitors
- Two years:
  - Standard varifocal, fixed focal, and motorized zoom lenses
  - DF5/DF8 Series fixed dome products
  - Legacy® Series integrated positioning systems
  - Spectra III™, Spectra Mini, Spectra Mini IP, Esprit®, ExSite®, ExSite IP, and PS20 scanners, including when used in continuous motion applications
  - Esprit Ti and TI2500 Series thermal imaging products
  - Esprit and WW5700 Series window wiper (excluding wiper blades)
  - CM6700/CM6800/CM9700 Series matrix
  - Digital Light Processing (DLP®) displays (except lamp and color wheel). The lamp and color wheel will be covered for a period of 90 days. The air filter is not covered under warranty.
- Six months:
  - All pan and tilts, scanners, or preset lenses used in continuous motion applications (preset scan, tour, and auto scan modes)

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to a Pelco designated location. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental, or consequential damages (including loss of use, loss of profit, and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800) 289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

1. Model and serial number
2. Date of shipment, P.O. number, sales order number, or Pelco invoice number
3. Details of the defect or problem

If there is a dispute regarding the warranty of a product that does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

RETURNS

To expedite parts returned for repair or credit, please call Pelco at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair) and designated return location.

All merchandise returned for credit may be subject to a 20 percent restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid.

Revised 1-12-12

Green The materials used in the manufacture of this document and its components are compliant to the requirements of Directive 2002/95/EC.

This equipment contains electrical or electronic components that must be recycled properly to comply with Directive 2002/96/EC of the European Union regarding the disposal of waste electrical and electronic equipment (WEEE). Contact your local dealer for procedures for recycling this equipment.

REVISION HISTORY

Manual #	Date	Comments
C4688M	8/12	Original version.

Pelco, the Pelco logo, and other trademarks associated with Pelco products referred to in this publication are trademarks of Pelco, Inc. or its affiliates.
ONVIF and the ONVIF logo are trademarks of ONVIF Inc. All other product names and services are the property of their respective companies.
Product specifications and availability are subject to change without notice.

© Copyright 2012, Pelco, Inc.
All rights reserved.

www.pelco.com

Pelco by Schneider Electric 3500 Pelco Way Clovis, California 93612-5699 United States
USA & Canada Tel (800) 289-9100 Fax (800) 289-9150
International Tel +1 (559) 292-1981 Fax +1 (559) 348-1120